

Program Description/Textbook or Print Instructional Material

Vendor: Delmar Learning Web Address: www.delmar.com

Title: Welding Principles and Applications

Author: Jeffus Copyright: 2004

ISBN: 1-4018-1046-2 Course/Content Area: Vocational and Career Education; Industrial Technology; Welding

Intended Grade or Level: 9-12 Readability Level: 11.2 (Flesch Kincaid)

List Price: 97.95 Lowest Wholesale Price: 72.50

All materials bid as of July 1, 2003 must be offered in an alternative format for students who require reading accommodations. A description of the levels of accommodation is included on p. 8-9 of this bid packet. The Kentucky Department of Education must receive a copy of the alternative format if the material is placed on the State Multiple List.

Level of Accommodations (Level One, Two or Three) Level Three

If Level Two or Three, please provide rationale for not meeting Level One Compliance It is not financially feasible for our products to meet Level One at this time.

FEATURES

DISCLAIMER: The features of each book or program were developed by the publisher and do not reflect the opinion of the State Review Team, State Textbook Commission, nor of the Kentucky Department of Education.

Content

- Comprehensive coverage spans from specific welding processes to discussion of related topics, including welding metallurgy, metal fabrication, weld testing and inspection, joint design, and job costing.
- new coverage of metal-cored wires and self-shielding in flux cored arc welding and updated information on joint design, symbols, and fabrication reflects the latest trends.

Student Experiences

- all-new "Applied Academics" sections provide opportunities to develop math, science, communication, and interpersonal skills as they relate to the welding field.
- "Success Stories" profile real-life welders, capturing attention and motivating readers who may be considering welding as a career choice
- lab practices are included in the book to guide users step-by-step as they learn to produce high-quality welds using different materials, material thickness, and positions

Assessment

Available in full-color, the fifth edition of *Welding: Principles and Applications* features more tight shots of actual welds to speed beginners to an understanding of a variety of different welding processes used today.

Organization

- Moving quickly from basic concepts to the study of today's most complex welding technologies, each section begins by introducing readers to the materials, equipment, setup procedures, and critical safety information they need to know to successfully execute a specific process. Remaining chapters in the section zero in on individual welding tasks and must-know techniques.
- Objectives, key terms, review questions, lab experiments, and practice exercises in every chapter are also included to focus attention on information and skills required for success as a professional welder.
- boxed articles at the end of each chapter showcase real-life applications of the principles presented, maintaining reader interest while bridging the gap between theory and practice

Resource Materials

Gratis Items To Be Provided And Under What Conditions

Instructor's Manual (1-4018-1047-0) Free 1 per teacher

Available Ancillary Materials

RESEARCH DATA AND EVIDENCE OF EFFECTIVENESS

DISCLAIMER: The research data and evidence of effectiveness was provided by the publisher and does not reflect the opinion of the State Review Team, State Textbook Commission, nor the Kentucky Department of Education.

NOTE: *Please complete this section by indicating the research data and evidence of effectiveness or give a web site where the information is located. If there is no research data and evidence of effectiveness, please indicate “not available” in the space.*



Group V - Career/Technical Vocational/Practical Living Education Instructional Materials Evaluation Tool Manufacturing Career Cluster



Title: Welding Principals and Applications \$72.50			
Publisher: Delmar Learning			
Item Evaluated: Textbook and Teacher's Manual			
Copyright Date: 2004		Evaluator: Tomlinson	
Content Level: 9-12		Date of Evaluation 7/29/03	
Level of Alternative Format	Level 1 – Full Compliance	Level 2 – Provisional Compliance	Level 3 – Marginal Compliance
This section completed by Exceptional Children Services			

Overall Strengths and/or Weaknesses

Disclaimer: Comments on the strengths and/or weaknesses of each book, material or program were written by members of the State Textbook/Instructional Materials Review Team and reflect their opinions . They do not reflect the opinions of the State Textbook Commission nor the Kentucky Department of Education. In addition, the State Textbook/ Instructional Materials Review Team completed each evaluation form during the week of July 28-Aug. 1, 2003. In order to maintain the integrity of the of the review team's comments, editing was limited to spelling and punctuation.

Recommendations:
X Recommended by reviewers to State Textbook Commission
Not recommended by reviewers to State Textbook Commission

Publisher's Explanation of Reviewer's Comments: By action of the State Textbook Commission, publishers are provided limited space, 150 words, to respond to what they may consider factual errors made by the reviewers in the evaluation.



**Group V - Career/Technical
Vocational/Practical Living Education
Instructional Materials Evaluation Tool
Manufacturing Career Cluster**



Title: Welding Principals and Applications		Publisher: Delmar Learning	
Technology Management Summary Data:		20 possible points	_____0_____ points earned
Technology Management Comments:			
Technology Presentation/Interface Summary Data:		36 possible points	_____0_____ points earned
Technology Presentation/Interface Comments:			
Content Summary Data:		140 possible points	_____50_____ points earned
Content Comments:			
Instruction & Management Summary Data		52 possible points	_____40_____ points earned
Instruction & Management Comments:			
Organization & Structure Summary Data		36 possible points	__30_____ points earned
Organization & Structure Comments:			
Resource Material Summary Data		40 possible points	__15_____ points earned
Resource Material Comments:			



Group V - Career /Technical & Vocational/Practical Living

Electronic Instructional Media Review Form

Stand Alone/Independent or Integrated Software for Manufacturing Career Cluster



Equipment (circle or change fill color)	Grade Level (circle or change fill color)	Audience (circle or change fill color)	Format (circle or change fill color)	Cost _____	
Windows	Primary	Individual	Stand Alone/Independent	_____ single copy	_____ site license
Macintosh	Intermediate	Small Group	Integrated	_____ network version	_____ school version
CD-ROM	Middle	Large Group	Supplemental	_____ lab pack of _____ copies	_____ online
DVD	High		In lieu of basal test		
Sound					
Other					

If other, explain _____

Type of Software: Check all that apply	_____ Simulation	_____ Management	_____ Interdisciplinary	_____ Problem Solving	_____ Tutorial
_____ Exploratory	_____ Creativity	_____ Drill and Practice	_____ Critical Thinking	_____ Utility	_____ Other:

Rating Scale:	3—Some of the time	1—None of the time
4—All or the time	2—Minimally	0— Not applicable

Management	Rating
Allows customizing for individual learning needs.	
Allows students to exit and resume at a later time.	
Keeps a students performance record, where needed.	
Allows control of various aspects of the software (e.g., turning sound off).	
Allows for printed reports.	
Comments:	Total

Presentation/Interface	Rating
Presents material in an organized manner.	
Has consistent, easy-to-use, on-screen instructions.	
Has developmentally correct presentation format.	
Adapts to different learning environments (learning styles/multiple intelligences, etc.)	
Accessible for special needs students.	
Runs smoothly, without long delays.	
Presents easy-to-view text and graphics.	
Presents easy-to-hear and understand sounds.	
Avoids unnecessary screens, sounds, and graphics.	
Provides immediate, appropriate feedback.	
Comments:	Total

Content— Manufacturing Career Cluster	Rating
Electrical/Electronic Safety	4
Direct Current Circuits/Lab	3
Alternating Current/Lab	3
Electrical Principals	3
Electronic Devices and Circuits	0
Electronic Drafting	0
Microcomputer Operating Systems	2
Fundamentals of Machine Tools	0
Applied Machining	0
Manual Programming CAD/CAM/CNC	2
Blueprint Reading	4
Computer Fundamentals	0
Fluid Power/Lab	0
Industrial Maintenance Electric Motor/Lab	0

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Content— Manufacturing Career Cluster	Rating
Maintaining Industrial Equipment	0
Industrial Safety	4
Pneumatic Systems/Lab	2
Technical Communications	3
Technical Math	0
SMAW Plate Labs	4
Gas Tungsten Arc Welding/Lab	4
Certification Welding/Lab	4
Oxy-fuel Cutting Lab	4
Wood Product Manufacturing	0
Wood Finishing	0

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Content— Manufacturing Career Cluster	Rating
Technical Drawing and Blueprint Reading	4
Millwork Technology	0
Furniture Technology	0
Basic Refrigeration and Air Conditioning	0
Electrical Components and Test Equipment	0
Gas/Electric Appliance Applications	0
Maintenance of Industrial Equipment	0
Polymer Science and Testing	0
Environmental Practices	0
Project Lead The Way (Pre-Engineering)	0
Comments:	Total 50

Rating Scale:	2—Minimally
4—All or the time	1—None of the time
3—Some of the time	0— Not applicable

Instruction and Assessment	Rating
Identifies a Sense of Purpose	4
Builds on Student Ideals	3
Engages Students	3
Develops Computer Maintenance Ideas	0
Promotes Student Thinking	4
Assesses Student Progress	4
Enhances The Learning Environment	3
Reading level is appropriate for interest and ability level of intended student group; level remains consistent throughout.	3
Commonwealth Accountability Testing System (CATS) "like" Assessment is provided	3
Variety of Assessments (diagnostic, formative, summative, open response, multiple choice, individual, small group, oral, demonstrations, presentations, self and peer performance, portfolio prompts) is included.	3
Includes activities and opportunities for integration of technology.	3
Reflects researched-based practices (e.g. hands-on activities, technology, problem-solving situations)	4
Differentiation techniques and activities suggested.	3
Comments:	Total 40

Rating Scale:	3 – Some potential for learning	1 - Not present
4 – High potential for learning	2 – Little potential for learning	0 – Not applicable

Organization and Structure	Rating
Organization is logical and allows for spiraling of content.	4
Vocabulary and key terms are clearly defined and easily accessible within each lesson.	4
Visual illustrations (e.g. graphs, charts, models) and examples are clearly presented and content-related.	4
Illustrations and language reflect diversity (e.g. racial, ethnic, cultural, age, gender, disabilities).	3
Legible type, length of lines, spacing, and page layout and width of margins contribute to overall appearance and use.	3
Student materials seem durable and conducive to daily use.	4
Includes sufficient glossary, index and appendices.	4
Employs accurate grammar and spelling	4
Organization of material can be effectively used with Standards Based Units, Core Content and Program of Studies.	4
Comments:	Total 34

Resource Materials	Rating
Teacher materials coordinate easily with student materials (e.g. additional resources included at point of need, student pages shown, integration of technology indicated)	4
Activities are included that adapt to the various learning styles, intelligences, and interest/ability levels.	4
Extension activities including adaptations and accommodations for students with special needs.	2
Resources provide objectives, background information, common student errors, hints, advice for lesson implementation and real-world connections, connections with career and/technology and references (e.g. solution manuals, study guides)	2
Suggestions are made for integration of themes and /or interdisciplinary instruction.	1
Integration opportunities suggested and examples given.	1
Teacher resources are available online.	1
Online resources available – Repeat of information in text.	0
Online resources available – Practice skills only.	0
Online resources available – New application materials.	0
Comments:	Total 15

Rating Scale:	
4—All or the time	2—Minimally
3—Some of the time	1—None of the time
	0— Not applicable